

# **KT15 Pump Head USER'S MANUAL**





**Note:**

- Please read the operation manual before using the product.



**Warning:**

- Tubing may have crack due to wear. It results in the overflow of fluid from tubing. In that time human body and instruments may be harmed. So users must check frequently and change tubing in time.
- When changing the tubing or the position of the tubing, please stop the pump head rotating, otherwise fingers or clothes may be caught.
- There are moving parts of the pump head inner, before opening the upper block, it must be carried out according to the following requirements:
  - Ensure the pump is isolated from the main power supply.
  - Ensure there is no pressure in tubing.
  - If the tubing gets mistakes, ensure the liquid in the tubing is discharged to other containers or drain tubing.
  - If transports the dangerous liquid, must wear the protective clothing and eye protection.

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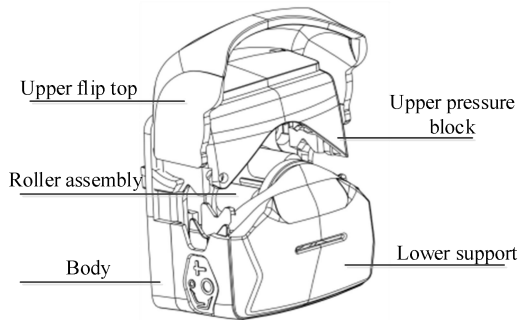
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## 1. Product Overview

KT15 is flip type pump head with small size and compact design. Opening the upper pressing block through flipping, easy to operation. With elastic upper pressure block to reduce tubing's wearing. Self-adaptive clamping device to replace tubing rapidly. It is suitable for 5 different sizes tubing to meet different flow requirements.

KT15 pump head is widely used in supporting analytical instruments. According to different technical requirements, it can fit for stepper motor, DC motor, synchronous motor, AC reduction motor, etc.

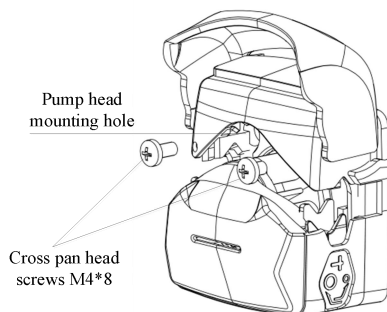
## 2. Pump Head Instruction



### 2.1 Pump Head Installation

#### Install pump head from front mounting hole.

Align the pump head shaft with drive shaft head and insert it, use two special screws to insert into the mounting holes on the pump head, and at the same time align with the connecting hole of the driver, try to tighten the screws with the same force.

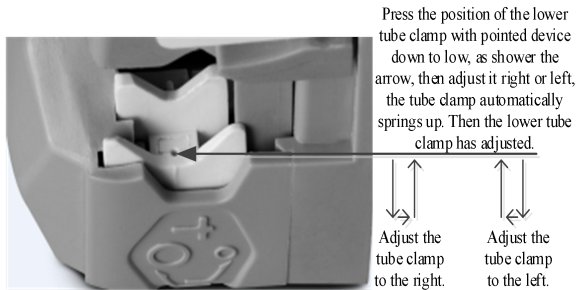


**2.2 Tubing Installation**

- ① Lift the flip top of the pump head to open the pump head.



- ② Adjust the tube clamp to the position corresponding to the installed tube size.



- ③ Install tube into the pump head.



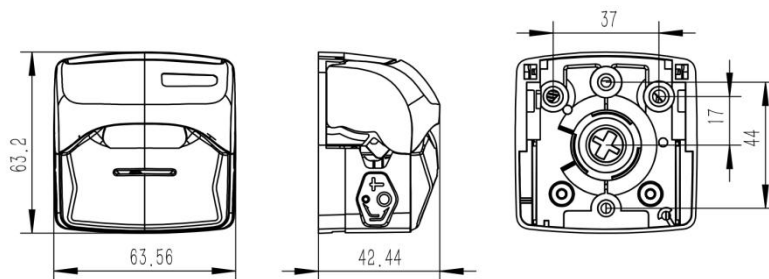
- ④ Close the flip top of the pump head downward to complete the installation.



**Note: In order to obtain the best tubing service life, it is recommended to run the pump head clockwise**

### 3. Dimension Drawing

(Unit:mm)



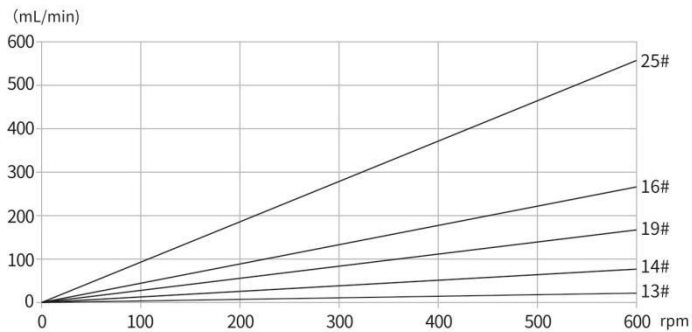
Note: The height after opening the flip is 93mm.

### 4. Pump Head Specification

#### 4.1 Pump Head Technical Specification

Pump Head Model	Channel Number	Suitable Tubing		Milliliters Per Revolution	Speed Range	Flow Rate Range	Weight (kg)
		Tubing	ID×Wall Thickness (mm)		rpm	mL/min	
KT15	Single Channel	13#	0.8×1.6	0.033	0.1~600	0.0033~19.97	0.096
		14#	1.6×1.6	0.156		0.0156~93.42	
		19#	2.4×1.6	0.286		0.0286~171.6	
		16#	3.1×1.6	0.477		0.0477~286.32	
		25#	4.8×1.6	0.933		0.0933~560.04	

## 4.2 Flow Rate Chart



Explanation: The above flow reference data is measured at room temperature under standard atmospheric pressure with pure water as the transmission medium, under conditions of no pressure and no suction head. Due to various factors such as transmission medium, inlet and outlet pressure, hose material and error, and working environment, this data is for reference only.

## 5. Troubleshooting

If the pump head is running but the flow is small or no flow, please check the following items:

- Check whether the pump is supplied with transmission liquid;
- Detect whether the suction side pipeline of the pump is blocked by suction wall;
- Check if the tube is cracked;
- Check for blockages or kinks in the tube;
- Check whether the wall thickness of the tube used is correct;
- Check whether all valves in the tube are open;
- Check whether the rotation direction of the pump is correct.

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**6. Maintenance**

- When pump does not work, please loose the upper block which press the tubing for avoiding changing the shape of tubing because of longtime extrusion.
- Keep the rollers of pump head clean and dry, otherwise it can quicken the tubing wear, reduce the useful life of tubing and lead the rollers to damage in earlier.
- Before the peristaltic pump start running each time, check the tubing carefully if it is damage.
- If the pump head in water accidentally, use soft cloth and other absorbent soft cloth to wipe dry to prevent damage to the pump head.
- After replacing the tube, fluid or any connecting tube, must be re-calibrated the pump. It is recommended to re-calibrate the pump regularly to maintain accuracy.
- The pump head is not resistant to organic solvents (except for special indications) and strong corrosive liquids, special attention should be paid when using.
- Regarding the tubing, there is a certain deviation in the inner diameter and wall thickness of the hose due to its own tolerance and different batches; it will affect the product flow accuracy, and it is recommended that customers should leave a certain margin design when selecting.
- When the input and output diameters become smaller or there is suction and lift, the flow will be affected and the flow will be reduced.
- The data recorded in this document is the value under short-term measurement conditions, and there will be changes in long-term use.
- The company shall not bear the direct and indirect losses caused by the malfunction or improper operation of this product.